

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**ASIA AND PACIFIC OFFICE**



**REPORT OF THE FOURTEENTH MEETING OF THE ICAO**  
**REDUCED VERTICAL SEPARATION MINIMUM IMPLEMENTATION**  
**TASK FORCE (RVSM/TF/14)**

BANGKOK, THAILAND

30 - 31 MAY 2002

The views expressed in this Report should be taken as those of the  
Task Force and not the Organization

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RVSM/TF/14  
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## **1.1 Introduction**

1.1.1 The Fourteenth Meeting of the Reduced Vertical Separation Minimum Implementation Task Force (RVSM/TF/14) was held at the ICAO Asia and Pacific Office in Bangkok, Thailand from 30 to 31 May 2002.

1.1.2 The Terms of Reference for the Task Force are contained in Appendix A to this Report.

## **1.2 Attendance**

1.2.1 The meeting was attended by 72 participants from Australia, Cambodia, China, Hong Kong China, Macau China, Egypt, India, Indonesia, Japan, Lao PDR, Malaysia, Nepal, Philippines, Singapore, Thailand, the United States, Viet Nam, IATA, IFALPA and IFATCA. A complete list of participants is at Appendix C.

## **1.3 Officers and Secretariat**

1.3.1 Mr. Sydney Maniam, Senior Air Traffic Control Manager (Standards), Civil Aviation Authority of Singapore (CAAS), Singapore, undertook the duties of Chairman of the Task Force for the first time. Mr. Hiroshi Inoguchi, Regional Officer, Air Traffic Management (ATM) from the ICAO Asia and Pacific Office, Bangkok served as the Secretary for the meeting, assisted by Mr. John Richardson, Regional Officer, ATM from the ICAO Asia and Pacific Office.

1.3.2 Mr. Yusfandri Gona, Head of Performance & Flight Test Section, Directorate General Air Communication (DGAC) Indonesia and Mr. Greg Hood, FIR Manager, Airservices Australia, undertook the duties of Chairman of the Aircraft Operations & Airworthiness Work Group (OPS/AIR/WG) and of the ATC Operations Work Group (ATC/WG), respectively for the first time. Mr. Nopadol Sangngurn, Vice-President, Business Development Bureau, AEROTHAI, chaired the Safety & Airspace Monitoring Work Group (SAM/WG), with the assistance of Ms. Christine Gerhardt, Analyst, FAA Technical Centre.

## **1.4 Opening of the Meeting**

1.4.1 Mr. Sydney Maniam opened the meeting and welcomed all the participants. He thanked all members of the Task Force for their efforts and hard work in making the implementation of RVSM in the Western Pacific/South China Sea area on 21 February 2002 a success. On behalf of the Task Force, he thanked the FAA for their guidance and leadership in the implementation process. Mr. Maniam urged all States to continue to work closely towards the implementation of RVSM in the other FIRs/AOR on 31 October 2002. He indicated that the first phase of the introduction of RVSM into the Western Pacific/South China Sea had been successful, and reiterated that the second phase of RVSM implementation in the South China Sea would further improve the effectiveness and efficiency of the airspace and assist in solving traffic congestion problems in this region where a high increase of traffic demand has been forecast.

1.4.2 Mr. Hiroshi Inoguchi, on behalf of Mr. Lalit Shah, Regional Director of the ICAO Asia and Pacific Office, welcomed the participants. He commented on the change of Management of the Task Force and welcomed the new Task Force Chairman, and Chairmen of the three Working Groups. He extended the appreciation of the Task Force to the leadership of the FAA United States

during the implementation to date, and expressed gratitude on behalf of the Task Force, for the ongoing support of the FAA. Furthermore, he informed the meeting that the second edition of the ICAO RVSM Manual (Doc 9574) was recently published.

**1.5 Documentation and Working Language**

1.5.1 The working language of the meeting as well as all documentation was in English.

1.5.2 Eighteen Working Papers and nineteen Information Papers were presented to the meeting. A list of papers is included at Appendix D.

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## **Agenda Item 1: Adoption of Agenda**

1.1 The meeting reviewed the provisional agenda presented by the Chairperson and adopted it as the agenda for the meeting. This agenda is at Appendix E to the Report.

## **Agenda Item 2: Operational Considerations**

### **Operational Implementation Plan – 21 February 2002**

2.1 The meeting undertook the first 90-days review of the implementation of RVSM in Cambodia, China (N892), Malaysia, Philippines, Singapore, Thailand and Viet Nam (Ho Chi Minh FIR) on 21 February 2002. All States reported that the transition went smoothly except for minor non-compliance of flight planning requirements and occasional misunderstanding of level assignments on some routes. The States involved updated the meeting as follows:

2.1.1 Cambodia reported that the implementation of RVSM on 21 February 2002 had progressed smoothly. There had been no significant change to procedures or level assignment, and air traffic controllers were performing well. Cambodia noted that eastbound traffic from Bangkok did not always obtain optimum cruising levels due to congestion in the area.

2.1.2 China reported that the implementation of RVSM on 21 February 2002 on N892 (within the oceanic airspace) had progressed smoothly.

2.1.3 Malaysia reported that the implementation of RVSM on 21 February 2002 was achieved successfully. There had been some concern over coordination with adjacent FIRs on the final cruising levels of aircraft entering RVSM airspace. This had resulted in increased workload for air traffic controllers. Malaysia would monitor the situation and study the viability of an additional route between TAXUL and PIBOS.

2.1.4 Philippines reported that the implementation of RVSM on 21 February 2002 had progressed satisfactorily. Due to its geographical location, Philippines had assumed the role of transition airspace between the Pacific and the South China Sea areas. Some controllers were concerned that they were not able to verify the RVSM approval status of aircraft that had omitted the letter “W” from Field 10 of the Flight Plans. The meeting agreed that a confirmation with the operator or pilot would suffice.

2.1.5 Singapore reported that the implementation of RVSM on 21 February 2002 had been successful. Air traffic controllers and flight crew had not encountered any major problem. Singapore noted that operational efficiency could be enhanced by extending the lower limit of RVSM to FL290. In addition, States could consider the use of FL400 on specific routes as a No-PDC level.

2.1.6 Thailand reported that they had implemented RVSM on three routes in the south-eastern portion of the Bangkok FIR on 21 February 2002. The transition had progressed successfully. Thailand noted that ground delays had been reduced as a result of pre-departure coordination with adjacent FIRs.

2.1.7 Viet Nam reported that the implementation of RVSM in the Ho Chi Minh FIR on 21 February 2002 had progressed smoothly. Since the implementation, 96% of air traffic had been assigned RVSM levels. In addition, inter-center coordination had improved significantly and as well as a reduction in ATC workload.

2.2 IATA commented positively on the implementation and operations of RVSM in the Western Pacific/South China Sea area since 21 February 2002. However, some concerns were expressed in relation to the dissemination of aeronautical information and NOTAMs on a daily basis by individual States. In this regard, IATA emphasized the need of close co-ordination and harmonization of activities of States.

2.3 IATA suggested the involvement of charting companies in developing RVSM materials in order to keep abreast with States' plans and to provide assistance if required in the area of aeronautical information. It was agreed that charting/flight data companies should be invited to the future meetings of the Task Force.

2.4 IFALPA considered that the implementation of RVSM in the Western Pacific/South China Sea area had enhanced efficiency of operations and praised States involved and the Task Force for a successful implementation of RVSM. IFALPA also urged that procedures be harmonized with adjacent regions in order to further enhance safety.

2.5 IFATCA also expressed positive views on the RVSM implementation on 21 February 2002. IFATCA emphasized the importance of the flight planning requirement to insert "W" for RVSM compliant aircraft by operators.

#### **Operational Implementation Plan – 31 October 2002**

2.6 States involved in the second phase of the implementation of RVSM in the Western Pacific/South China Sea area on 31 October 2002 reported their readiness as follows:

2.6.1 Cambodia reported that preparations for the implementation of RVSM were progressing satisfactorily to include R468 (PNH – SAPEN).

2.6.2 China advised that preparations for the implementation of RVSM in the Sanya AOR were progressing well and that controller training was underway. The band of RVSM levels would be from FL290 to FL410 and routes A1, P901, L642, and M771 would be included. It was also noted that RVSM would not be implemented on A202 within the Sanya AOR.

2.6.3 Hong Kong China advised that preparations for the RVSM implementation in the Hong Kong FIR were progressing well. The band of RVSM levels would be from FL290 to FL410. RVSM would not be implemented on A202.

2.6.4 Indonesia advised that preparations for the implementation of RVSM in the Jakarta and Ujung Pandang FIRs were progressing well. RVSM would be implemented on 34 routes (12 routes in Jakarta FIR and 24 routes in Ujung Pandang FIR). Indonesia advised that following the 16<sup>th</sup> ATC co-ordination meeting between Australia and Indonesia in Melbourne, Australia, Indonesia had sent personnel to learn Australian experience on RVSM implementation. The RVSM training programme was finalized on March 2002.

2.6.5 Lao PDR advised that preparations for the RVSM implementation were progressing well. RVSM would be implemented from FL290 to FL410 on routes B465, R474, A1, A202, B202, B329, B346, and B218. Lao PDR was considering sending air traffic controllers to neighboring States who had implemented RVSM to observe the application of the relevant procedures. Preliminary simulations had also been conducted with satisfactory outcomes.

2.6.6 Malaysia, Philippines and Singapore reported that under Phase 2, the band of RVSM levels in their respective FIRs would be extended from FL290 to FL410.

2.6.7 Thailand advised that under Phase 2, RVSM would be implemented on routes A1 and A202 in the Bangkok FIR.

2.6.8 Viet Nam advised that preparations for the implementation of RVSM on the remaining routes in the Ho Chi Minh FIR and specific routes in the Han Noi FIR were progressing well. RVSM would be implemented from FL290 to FL410.

2.7 The meeting agreed that a special co-ordination meeting should be held to finalize arrangements for the implementation of RVSM on 31 October 2002. To this end, Philippines offered to host this special co-ordination meeting in Manila, Philippines, between 29 and 31 July 2002. The meeting unanimously expressed appreciation for the offer and agreed to the dates and venue of the special co-ordination meeting.

2.8 The meeting agreed that where necessary States should establish the transition areas and procedures to facilitate the transit of aircraft between the FIRs/AOR concerned. States should finalize the transition areas and procedures at the Special Coordination Meeting in July 2002.

2.9 The meeting finalized the operational plan for the implementation of RVSM in the Western Pacific/South China Sea area as shown in Table 2.1 of Appendix F to the Report.

#### **Assignment of RVSM Levels**

2.10 The meeting agreed that the assignment of levels to aircraft operating on the 6 parallel RNAV routes and crossing routes in the South China Sea (referred to as the Modified Single Alternate Level Assignment Scheme) would continue to be applied.

2.11 The meeting agreed that the use of FL300 and FL400 as No-PDC levels would be discussed at the Special Coordination Meeting in July 2002, with a view to implement the change from 31 October 2002.

2.12 Cambodia, China, Hong Kong China, Philippines and Viet Nam agreed that the following flight level arrangements would be applied:

- a) For westbound flights on A1 and A901 (Hong Kong – Sanya – Ho Chi Minh), FLs 280, 350, and 390 would be used as No-PDC levels. The PDC level would be FL310. For eastbound flights, FLs 290, 330, 370 and 410 would be used as No-PDC levels. With prior coordination, other flight levels may be available.
- b) For westbound flights on A202 (Hanoi – Sanya), FLs 350 and 390 would be used as No-PDC levels. The PDC level would be FL310. For eastbound flights, FLs 330, 370 and 410 would be used as No-PDC levels. With prior coordination, other flight levels may be available.
- c) For routes from Ho Chi Minh to Manila, there would be no change to the existing SLOA between Manila and Ho Chi Minh.

2.13 The meeting agreed that the flight level orientation scheme (FLOS) for the South China Sea should be reviewed at a suitable time following the Phase 2 implementation on 31 October 2002. Initial discussions would be conducted at the 90-day review meeting (RVSM/TF/18) in February 2003.

**AIP Supplement**

2.14 The meeting agreed that Section 12.0 of the AIP Supplement on RVSM operations relating to procedures for operation of non-RVSM compliant aircraft in RVSM airspace, should be amended. The sample AIP Supplement incorporating this amendment is in Appendix G. The AIP Supplement should also include the No-PDC assignment of RVSM levels. States that have not published the AIP Supplement should do so by late July 2002. States that have implemented RVSM should publish an AIP amendment by late July 2002 to inform operators of the changes.

**Publication of AIC and AIP**

2.15 The meeting noted that China, Hong Kong China, Indonesia, and Lao PDR that would implement RVSM on 31 October 2002, had published the AIC in order to provide operators with advance information on the implementation of RVSM in the Western Pacific/South China Sea area. A table showing the latest status of publication of AIC and AIP Supplement is at Appendix H to this Report.

**Reports on Large Height Deviations**

2.16 The meeting reiterated the need for States concerned to provide monthly reports on large height deviations to the APARMO each month, using the form at Appendix I. A "NIL report" (where applicable) was necessary to ensure the completeness of the safety assessments relating to RVSM operations. It was reconfirmed that this monthly large height deviation reports should be submitted to the APARMO by the end of the following month. ICAO would liaise with States that have not provided the reports.

2.17 The meeting was of the opinion that States should also provide details of operational errors to the airlines/operators of aircraft involved.

2.18 The meeting further agreed that States concerned should put appropriate measures in place to ensure that operational errors are significantly reduced in order for the target level of safety to be maintained.

**Large-Scale Weather Deviations**

2.19 The meeting agreed that the procedures for large-scale weather deviations should be reviewed between States concerned. The procedures should be included in the respective LOAs/SLOAs.

**Resumption of RVSM Operations due Adverse Weather**

2.20 The meeting agreed that States should consult their relevant meteorological agencies prior to the resumption of RVSM operations as a result of adverse weather conditions, in accordance with the ICAO manual.

**Agenda Item 3: Issues Relating to Airworthiness and Operation of Aircraft**

**RVSM Website**

3.1 The meeting reviewed the need for the availability of the RVSM Website from the FAA ([www.faa.gov/ats/ato/rvsm1.htm](http://www.faa.gov/ats/ato/rvsm1.htm)) to States and operators to provide a better understanding of the airworthiness and aircraft operations material available. The website lists the published information on RVSM and the FAA had agreed to maintain the website for States, operators and the ICAO RVSM Task Force. The meeting agreed that members should continue to review the documents on this website and provide the Chairperson OPS/AIR/WG with recommendations on changes needed.

**Western Pacific/South China Sea Readiness Assessment**

3.2 The meeting reviewed the readiness assessment of operators in the Western Pacific/South China Sea area. The meeting noted that 91 percent of operators had obtained RVSM approval. The meeting agreed to pursue the approval of non-compliant aircraft before the next phase of implementation on 31 October 2002.

**ICAO Regional Supplementary Procedures (Doc 7030)**

3.3 The meeting reviewed the status of the amendment to the ICAO Doc7030 on in-flight contingencies (including weather deviation). The amendment to the document would be finalized in consultation with the Middle East (MID) Region and ICAO Headquarters. It would be circulated to States and international organizations in due course.

**Strategic Lateral Offsets**

3.4. The meeting reviewed the status of the proposed procedures for strategic lateral offset. It was advised that ICAO had distributed an amended set of guideline on the use of lateral offsets and the effect on airspace safety under State Letter C19-15/02-1 dated 19 April 2002. APANPIRG is in the process of developing lateral offset procedures for application in the Asia/Pacific Region through the ATS/AIS/SAR Sub-Group.

**Height-Keeping Performance Monitoring**

3.5 The meeting reviewed the program for the monitoring of aircraft height-keeping performance, as part of the RVSM Continuous Airworthiness Program, after initial operational approval had been issued. The meeting noted that the Asia/Pacific Airspace Safety Monitoring (APASM) Task Force would develop the structure for regional monitoring of aircraft operations, including the height-keeping performance of aircraft.

**Agenda Item 4: Safety and Airspace Monitoring Considerations**

**Readiness Assessment for the Implementation of RVSM in Western Pacific/South China Sea**

4.1 The meeting considered WP9 under this topic. The APARMO reported that it had used the sample of traffic for the period of one month between 15 November and 15 December 2001 in the Western Pacific/South China Sea airspace that had been identified for RVSM implementation on 31 October 2002. The traffic samples were provided by China, Hong Kong China, Indonesia, Lao PDR, and Viet Nam for their respective FIRs/AOR. State RVSM approvals reported to the North

Atlantic Central Monitoring Agency and APARMO, as well as MASPS-compliant airframes identified by EUROCONTROL, were compared to the traffic sample used in this working paper. Based on these sources, the percentage of operations currently being conducted by RVSM-approved operators and aircraft in the Western Pacific/South China Sea area was 91 percent.

4.2 The Task Force had adopted a target of 90-percent operator approval for RVSM implementation. The readiness assessment done by the APARMO indicated that a sufficient percentage of operators had obtained RVSM approval for operations in the designated RVSM airspace. The meeting noted that the readiness requirement was met for the planned implementation of RVSM in Western Pacific/South China Sea area on 31 October 2002.

#### **RVSM Safety Assessment**

4.3 The meeting noted that the safety assessment conducted by the APARMO confirmed that the safety target for the implementation of RVSM in the FIRs/AOR in the Western Pacific/South China Sea area on 21 February 2002 had been met.

4.4 The meeting considered WP8 and WP10 on the safety assessment associated with the implementation of the RVSM in the FIRs/AOR in the Western Pacific/South China Sea area on 31 October 2002.

4.5 The meeting recalled that the safety goal to be satisfied when implementing RVSM was a Target Level of Safety (TLS) of  $5 \times 10^{-9}$  fatal accidents per flight hour. The meeting also noted the two-step approach to applying the TLS when evaluating the acceptability of the collision risk estimated to pertain when RVSM was implemented:

- a) the estimated collision risk attributable to aircraft height keeping performance ("technical risk") should be less than  $2.5 \times 10^{-9}$  fatal accidents per flight hour due to the loss of correctly established vertical separation of 1,000 ft and;
- b) the estimated collision risk due to all causes should be less than  $5 \times 10^{-9}$  fatal accidents per flight hour.

4.6 The APARMO reported a  $9.79 \times 10^{-10}$  fatal accidents per flight hour due to the loss of correctly established vertical separation of 1,000 ft as the estimated technical risk for the airspace where RVSM was implemented in February 2002.

4.7 The APARMO also reported a value of  $2.92 \times 10^{-9}$  fatal accidents per flight hour as the estimated risk due to causes other than aircraft height-keeping performance in the airspace where the RVSM was implemented in February 2002. This value plus that due to the technical risk resulted in a value of risk attributable to all causes equal to  $3.90 \times 10^{-9}$  fatal accidents per flight hour, which was below the TLS value. The meeting concluded that these safety assessment results confirmed that the safety goal was established for the implementation of RVSM in the FIRs/AOR in the Western Pacific/South China Sea area on 21 February 2002.

4.8 The meeting reviewed an application of the collision risk model (CRM) for aircraft pairs traveling on crossing-routes at adjacent flight levels for the Western Pacific/South China Sea airspace. The crossing-routes CRM made several conservative assumptions to provide approximations that result in probability estimates to be at least as large as other representative distributions for mathematical convenience. The APARMO reported that the expected number of accidents per aircraft flight hour between aircraft pairs operating on crossing-routes at adjacent flight levels was estimated to be  $7.2 \times 10^{-12}$  associated with the planned 31 October 2002 RVSM implementation.

4.9 The APARMO reported  $9.79 \times 10^{-10}$  fatal accidents per flight hour due to the loss of correctly established vertical separation of 1,000 ft as the estimate of technical risk for the airspace where RVSM will be implemented on 31 October 2002. This estimate included the expected number of accidents per flight hour between aircraft pairs at adjacent flight levels on the same route traveling in both same and opposite directions, as well as on crossing-routes.

4.10 The meeting was informed that the number of operational errors needed to be reduced prior to the implementation of RVSM in the FIRs/AOR in the Western Pacific/South China Sea area on 31 October 2002. The APARMO reported that the estimated number of minutes that aircraft were operating at incorrect flight levels exceeded the amount that could be tolerated by the CRM. The meeting was also informed that the APARMO's experience had shown that the operational risk dominated the estimated risk value attributable to all causes. Once existing procedures were improved, the APARMO would ask operational experts to forecast the likely effect on the occurrence of operational errors. Issues pertaining to appropriate remedial actions to be taken by States/ATS providers concerned in order to demonstrate improvement were discussed under Agenda Item 2. Based on the advice of the operational experts, a value of estimated risk would then be re-computed.

4.11 The meeting was informed that a final safety assessment for the FIRs/AOR in Western Pacific/South China Sea area planning to implement RVSM on 31 October 2002 would be presented at RVSM/TF/16 in September 2002.

**Progress Report on AEROTHAI's Preparation to Become a Monitoring Agency for RVSM Operations in the Asia Region**

4.12 The meeting acknowledged the information on the progress of the transfer of responsibility for RVSM monitoring between the AEROTHAI and FAA Technical Centre. The meeting was informed of the recent engagement between the AEROTHAI and FAA Technical Centre in the area of airspace analysis and data collection process pertaining to RVSM, as well as the arrangements for the training of personnel from the AEROTHAI at the FAA Technical Centre.

4.13 The meeting was also informed of the progress that was under way for the signing of the Memorandum of Understanding (MOU) between the AEROTHAI and FAA.

4.14 AEROTHAI reassured the meeting of its commitment to the implementation of RVSM and that it would be ready to assume responsibility as the Monitoring Agency for RVSM operations in the Asia Region by October 2002. AEROTHAI also expressed its appreciation to the FAA for the assistance extended thus far in the transfer of responsibility as well as the reassurance to assist AEROTHAI in the area of airspace analysis, safety assessment and safety oversight program for RVSM operations.

**Agenda Item 5: Implementation Management Considerations**

**Task Force Work Groups**

5.1 The meeting continued with the decision that in order to accomplish the tasks in the action plan, the Task Force should be divided into smaller Work Groups as follows:

- a) Safety & Airspace Monitoring;
- b) ATC Operations; and
- c) Aircraft Operations & Airworthiness

5.2 The Terms of Reference of the Work Groups were reviewed as at Appendix B to the Report. The discussions from the Work Groups are contained under Agenda Items 2, 3 and 4.

#### **Review of the Preparations for RVSM Implementation**

5.3 Updates on the implementation of RVSM on 21 February 2002 were provided by Cambodia, China, Malaysia, Philippines, Singapore, Thailand and Viet Nam. Reviews on the readiness to implement RVSM on 31 October 2002 were also provided by China, Hong Kong China, Indonesia, Lao PDR and Viet Nam. These reports were further taken into account during the work of the ATC/WG.

#### **Direct Link to the FAA RVSM Website from the ICAO Asia/Pacific Website**

5.4 The meeting was advised that in order for States in the Asia/Pacific Region and operators to have an easy access to the FAA RVSM Website (<http://www.faa.gov/ats/ato/rvsm1.htm>), a direct link from the ICAO Asia/Pacific Regional Office Website (<http://www.icao.int/apac/>), had been established.

#### **Environmental Effects of RVSM in Australia**

5.5 Australia advised the meeting that Australian legislation requires that each air route change be environmentally risk assessed and that noise constraints and curfews apply at most large airports. Pressures were increasing on the industry to minimise noise and emissions from aircraft and to minimise the impacts of ground based operations such as fuel storage and delivery. Environmental compliance has become a major constraint on industry and the pressures to meet this would only increase in the future.

5.6 In this connection, the meeting noted with interest that at the broadest level, efficiencies in air traffic management and communications can lead to a 6% reduction in fuel usage (Intergovernmental Panel on Climate Change 1999). This relates to a potential saving of 750,000 tons of carbon dioxide per annum in the Australian context based on 1998 fuel usage data. The systems and standards that are minimizing fuel use include:

- Terminal Situational Awareness Display
- Future Air Navigation System
- User Preferred Routes
- Free Flight
- Area Navigation Routes
- Global Navigation Satellite System
- Automatic Dependent Surveillance Broadcast
- Maestro (tactical sequencing)
- Central Time Management System
- Reduced Vertical Separation Minima

RVSM was responsible for an estimated 10,800 tons per annum reduction in carbon dioxide emissions on the Brisbane Oceanic routes alone.

#### **Agenda Item 6: Review of Action Items**

6.1 The meeting reviewed and updated the task list relating to the implementation of RVSM as shown at Appendix J to the Report.

**Agenda Item 7: Future Work – Meeting Schedule**

7.1 The meeting agreed on the future work of the Task Force as follows:

Special Coordination Meeting: 29-31 July 2002 in Manila, Philippines  
(Western Pacific/South China Sea Focus)

RVSM TF/16: 23-25 September 2002 in Bangkok, Thailand  
(Western Pacific/South China Sea Focus)

(Target Implementation in Bali, Hanoi, Hong Kong, Jakarta, Ujung Pandang and Vientiane FIRs and Sanya AOR AIRAC date 31 October 2002)

RVSM/TF/17: 5 days November 2002 location TBD  
(Bay of Bengal/South of Himalayas Focus)

RVSM Seminar/5: 3 days November 2002 location TBD  
(Bay of Bengal/South of Himalayas Focus) in conjunction with RVSM/TF/17

RVSM/TF/18: 3 days February 2003 location TBD  
(90-day and 1-year follow up review on Western Pacific/South China Sea Focus)

RVSM/TF/19: 5 days May 2003 location TBD  
(Bay of Bengal/South of Himalayas Focus)

RVSM/TF/20: 5 days October 2003 location TBD  
(Bay of Bengal/South of Himalayas focus)

(Target Implementation Bay of Bengal/South of Himalayas AIRAC date 27 November 2003)

RVSM/TF/21: 3 days February 2004 location TBD  
(90-day follow up review on Bay of Bengal/South of Himalayas focus)

RVSM/TF/22: 2 days November 2004 location TBD  
(1-year follow up review on Bay of Bengal/South of Himalayas focus)

**RVSM Implementation Status**

7.2 The meeting updated the status of RVSM implementation in the Asia/Pacific Region as shown in Appendix K.

**Agenda Item 8: Other Business**

8.1 It was recognized that late submission of a significant number of Working/Information Papers to ICAO caused difficulties for the Secretariat in preparing meeting documents in a timely manner in order to facilitate discussions. Hence, the meeting urged participants to forward to the Secretariat meeting documents in an electronic form no later than 10 days prior to any meetings of the Task Force in the future.

8.2 There was no other business identified.

**9. Closing of the Meeting**

9.1 Mr. Sydney Maniam, the Task Force Chairperson, on behalf of the participants of the meeting, conveyed sincere appreciation to the ICAO Asia and Pacific Office for the strong support in the conduct of the meeting. Mr. Maniam sincerely thanked the Secretariat. The warm hospitality and assistance by all ICAO staff during the meeting was greatly appreciated by all participants.

9.2 On behalf of the ICAO Bangkok Regional Office, the Secretariat expressed appreciation to Australia, Indonesia, Singapore and Thailand for the significant support provided to the Task Force through the appointment of Chairpersons of the Task Force and its Work Groups in order to ensure the continuity of the Task Force work.

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